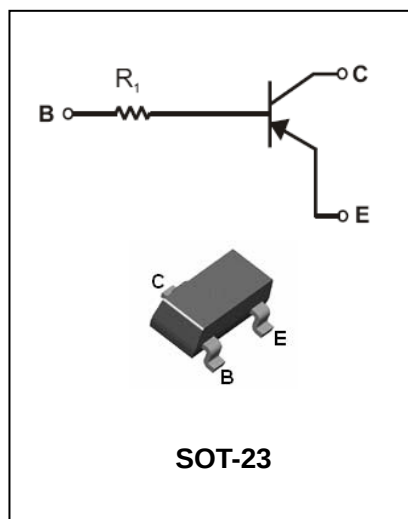


Digital Transistor

DTA124TCA R1

FEATURES

- Epitaxial planar die construction.
- Complementary NPN types available(DTC).
- Built-in biasing resistor, R_1 only.
- Also available in lead free version.



APPLICATIONS

- The PNP style digital transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
DTA124TCA	P16	SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
$I_C(\text{Max.})$	Collector Current	-100	mA
P_D	Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air	625	$^\circ\text{C}/\text{W}$
T_j, T_{stg}	Operating and Storage and Temperature Range	-55 to +150	$^\circ\text{C}$



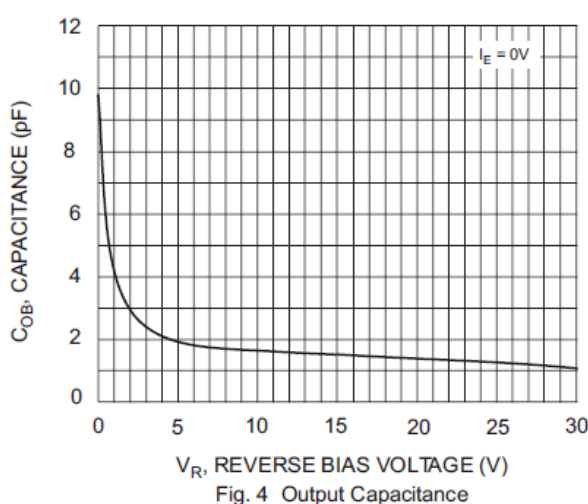
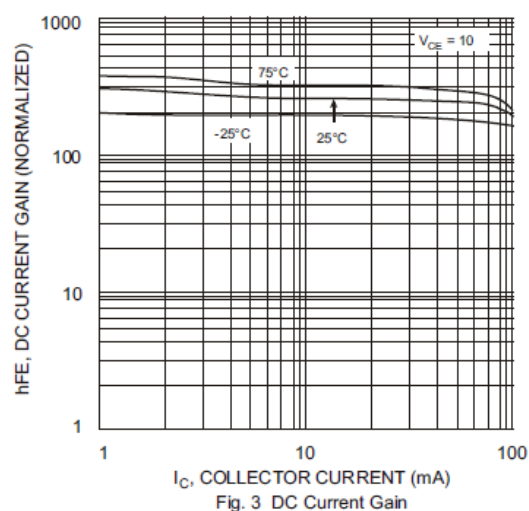
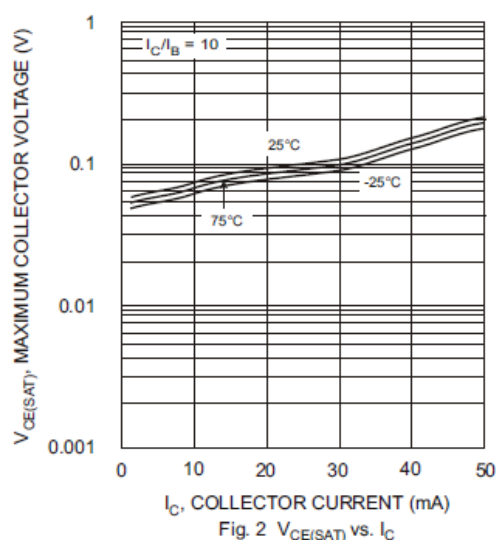
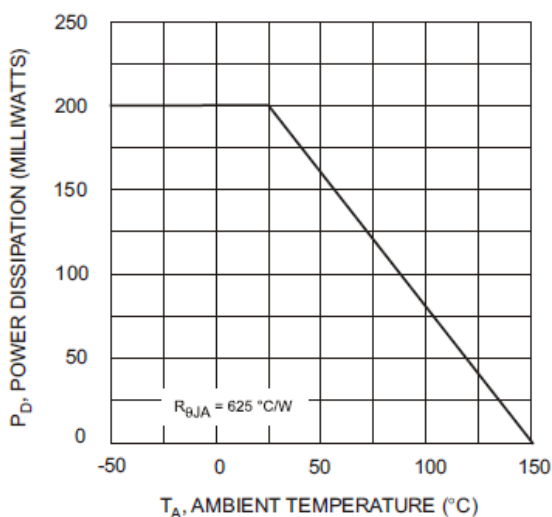
Digital Transistor

DTA124TCA R1

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base breakdown Voltage	BV_{CBO}	$I_C = -50\mu A$	-50			V
Collector-Emitter breakdown Voltage	BV_{CEO}	$I_C = -1mA$	-50			V
Emitter-Base breakdown Voltage	BV_{EBO}	$I_E = -50\mu A$	-5			V
Collector cutoff Current	I_{CBO}	$V_{CB} = -50V$	-	-	-0.5	μA
Emitter cutoff Current	I_{EBO}	$V_{EB} = -4V$	-	-	-0.5	μA
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B = -5mA/-0.5mA$			-0.3	V
DC Current Gain	h_{FE}	$I_C = -1mA, V_{CE} = -5V$	100	250	600	
Input Resistor(R_1)Tolerance	ΔR_1		-30		+30	%
Gain-Bandwidth Product	f_T	$V_{CE} = -10V, I_E = -5mA,$ $f = 100MHz$	-	250	-	MHz

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Digital Transistor

DTA124TCA R1

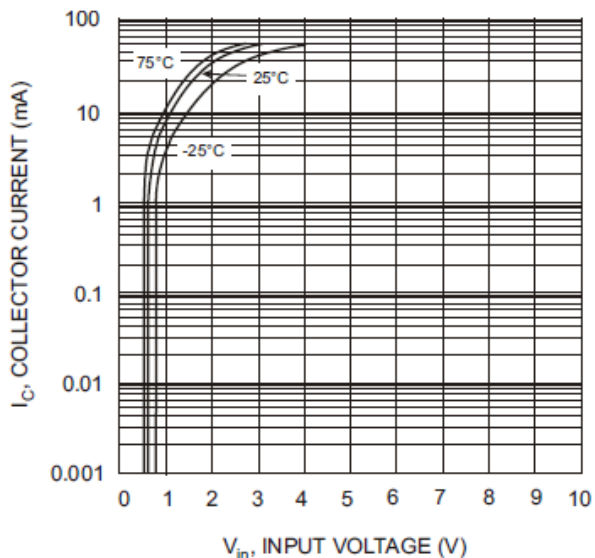


Fig. 5 Collector Current Vs. Input Voltage

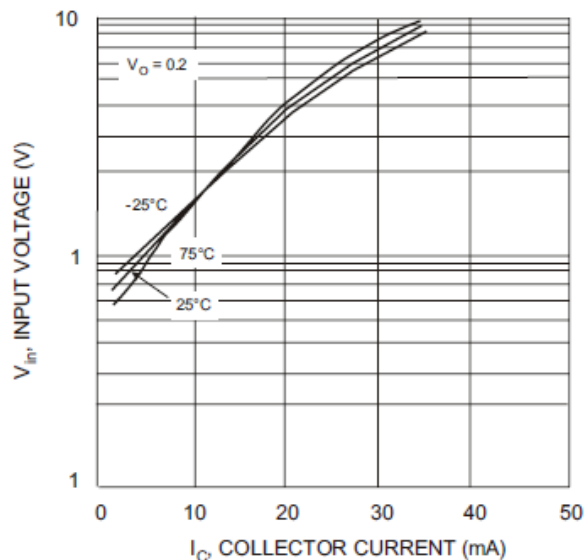
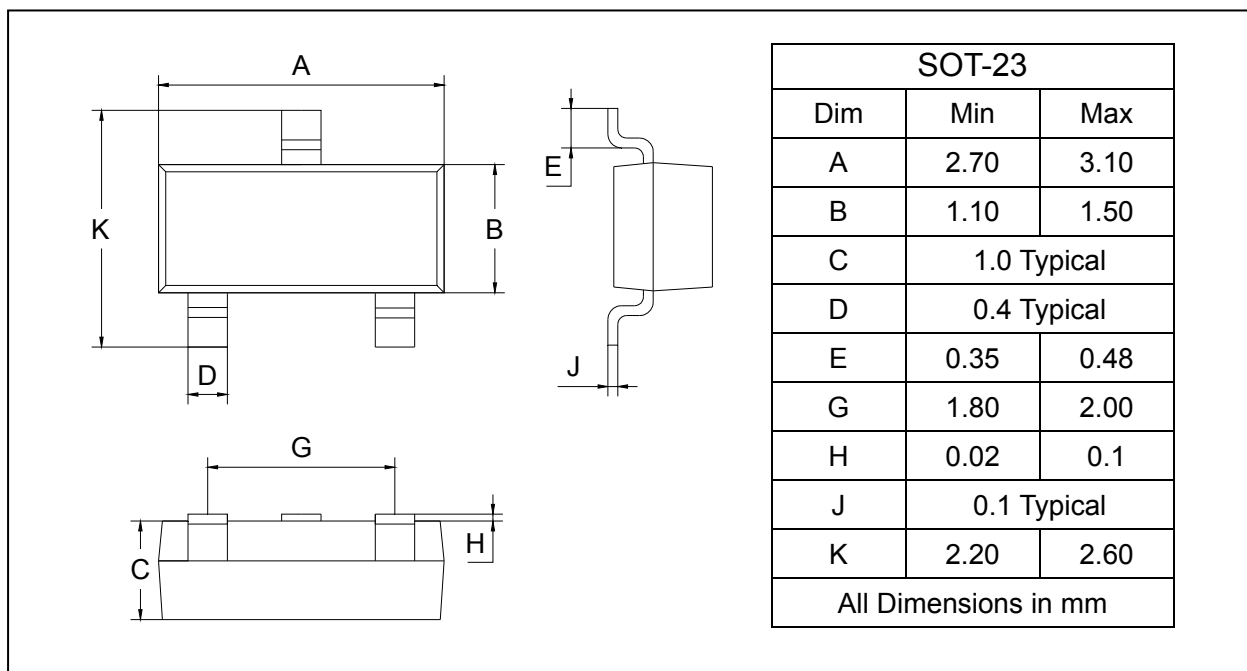


Fig. 6 Input Voltage vs. Collector Current

PACKAGE OUTLINE

Plastic surface mounted package

SOT-23

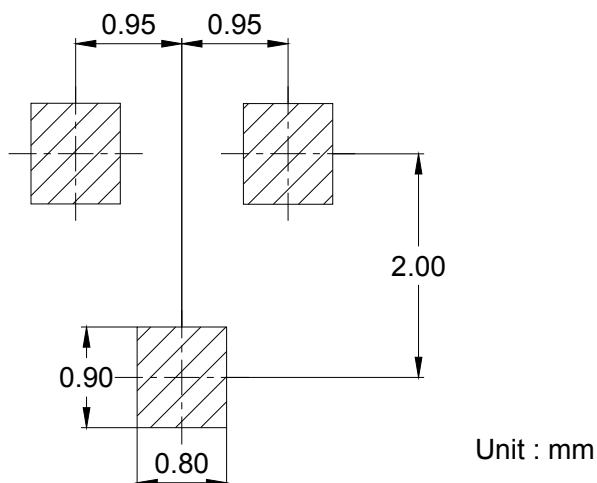




Digital Transistor

DTA124TCA R1

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
DTA124TCA	SOT-23	3000/Tape&Reel